

# Pharmacology

Drugs Used to Treat  
Cancer, Infectious Diseases and  
Inflammation

## Topics

- Oncolytic Agents
- Antibiotics
- Antifungals
- Antivirals
- Other Antimicrobials
- Antiparasitic Agents
  - Antihelminthics
- NSAIDs
- Serums, Vaccines & Other Immunologic Agents

# Antineoplastics

- Chemotherapy targets rapidly reproducing tissue
- Many side effects!

## Antimetabolites

- fluorouracil (Adrucil®)

## Mitotic Inhibitors

- vinblastine (Velban®)
- vincristine (Oncovin®)

## Alkylating Agents

- cyclophosphamide (Cytoxan®)
- mechlorethamine (Mustargen®)

# Antibiotics

- Bactericidal vs. Bacteriostatic agents
- Inhibit cell wall synthesis
  - Penicillin, cephalosporins & vancomycin (Vancocin®)
- Inhibit protein synthesis
  - macrolides, aminoglycosides, tetracycline

## Antifungals & Antivirals

- Inhibit fungal growth
  - Azole class
    - ketoconazole (Nizoral®)
- Antivirals
  - acyclovir (Zovirax®)
  - zidovudine (Retrovir®)
- Protease Inhibitors
  - Indinavir (Crixivan®)

## Antiparastics & Antihelminthics

Malaria	chloroquine (Aralen®), mefloquine (Lariam®), quinine
Tuberculosis	isoniazid (Nydrazid®, INH®, rifampin®) <i>HINT: learn to look for these!</i>
Amebiasis	paromomycin (Humatin®) metronidazole (Flagyl®)
Helminthiasis	mebendazole (Vermox®) niclosamide (Niclocide®)
Leprosy	dapsone (Avlosulfon®) clofazimine (Lamprene®)

## Uricosuric Drugs

- Treatment of Gout
- colchicine
- allopurinol (Zyloprim®)